Comments on **Request for Information on Merger Enforcement**[*]

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Recent debates about competition in the technology space often point to the merger and acquisition (M&A) activities of top technology firms. Some suggest that the largest tech companies, Google/Alphabet, Amazon, Apple, Facebook/Meta, and Microsoft (collectively also known as GAFAM), may be unusual in their number, pace and concentration of technology mergers. For instance, a recently released FTC 6(b) study, "Non-HSR Reported Acquisitions by Select Technology Platforms, 2010-2019," describes features of GAFAM's M&A activities such as the pace of their transactions and the distributions of their transaction sizes in dollar terms, as well as the ages of the acquired firms.[1] A shortcoming of the FTC's 6(b) study is its exclusive focus on GAFAM, without comparing the overall attributes (such as the size, type, pace, and volume, among other characteristics) of GAFAM's acquisitions with other leading acquirers of technology companies. Our recent research aims to fill in this gap.

Moreover, despite the fact that many of GAFAM's acquisitions have been reviewed by a variety of regulators, including retrospectively, a common argument is that out of GAFAM's tech M&A transactions, insufficiently many were reviewed, contested or blocked, and that GAFAM may have engaged in so-called 'killer acquisitions' or created so-called 'kill zones.' The same argument underlies demands for merger guidelines, filing requirements, and competition laws to be changed.[2]

Our comments herein are prepared with the aim of clarifying the contribution, insights, and context of our recent academic research on M&A activities in technology markets during the period 2010-2020 (Jin, Leccese and Wagman 2022a[3] and 2022b[4]). Our comments most prominently pertain to items 7 and 11 in the Request for Information from the agencies.[5] We highlight below several

[*] `https://www.regulations.gov/document/FTC-2022-0003-0001`

[1] "Non-HSR Reported Acquisitions by Select Technology Platforms, 2010-2019: An FTC Study." Available at: `https://www.ftc.gov/reports/non-hsr-reported-acquisitions-select-technology-platforms-2010-2019-ftc-study`

[2] See, for instance, the remarks of FTC Chair Lina M. Khan Regarding Non-HSR Reported Acquisitions by Select Technology Platforms, `https://www.ftc.gov/public-statements/2021/09/remarks-chair-lina-m-khan-regarding-non-hsr-reported-acquisitions-select`.

[3] Jin, Ginger Zhe, Leccese, Mario, and Wagman, Liad, "How Do Top Acquirers Compare in Technology Mergers? New Evidence from an S&P Taxonomy" (2022). NBER Working Paper No. w29642. Available at SSRN: `https://ssrn.com/abstract=4010491`

[4] Jin, Ginger Zhe, Leccese, Mario and Wagman, Liad, "M&A and Technological Expansion" (2022). Available at SSRN: `http://ssrn.com/abstract=4009215`

[5] Document FTC-2022-0003-0001, `https://www.regulations.gov/document/FTC-2022-0003-0001`, *supra* note ∗.

main findings from these works that bear relevance to the acquisitions of technology companies:

1. According to a dataset compiled by Standard & Poors, out of the 41,796 majority-control acquisitions of technology companies operating in the Information, Communications and Energy Technologies (ICET) space during 2010-2020, GAFAM acquired 595, accounting for less than 1.5%.

2. On a per-firm basis, some top technology acquirers, including private equity companies and other non-GAFAM firms, have matched or exceeded GAFAM in the volume of majority-control acquisitions per year since 2018.

3. Technology companies are acquired by a wide spectrum of public companies across the economy. Tech M&A activity is not concentrated among a handful of firms or in a single sector. Our work identifies numerous acquisitions made by firms operating in the Information, Services, and Supply Chain sectors, among others. We find that larger and older public companies are more likely to engage in tech M&A.

4. Utilizing a technology taxonomy from Standard & Poors, we find that GAFAM and other top technology acquirers increasingly compete with each other over 2010-2020. Moreover, within-GAFAM competition has steadily increased over this time period as well.

5. We find no evidence that GAFAM acquiring companies in a technology area deters competition in that area. To the contrary, we find that GAFAM acquisition in a technology area is positively correlated with other firms also entering the area via M&A. These findings go counter to antitrust theories such as kill zones. More specifically, for the kill zone theory to hold insofar as the M&A context, GAFAM's acquisitions should deter competitors from acquiring in the same technology and business areas; however, we find that rather than deterring competition, relatively more new competitors enter (through M&A) the areas where GAFAM acquired than other areas where GAFAM did not acquire, suggesting that competition in a tech area may in fact increase following a GAFAM acquisition.

6. We find that GAFAM primarily acquires tech companies in order to expand into new areas beyond their core businesses. Moreover, in comparison to other groups of top technology acquirers during 2010-2020, percentage-wise, GAFAM's acquisitions were the least concentrated around the acquirer's core business area, with the vast majority of GAFAM's acquisitions branching into new technology categories.

7. When we normalize the ages of acquired firms based on the average age of all firms operating in their nearest technology category, we find that GAFAM and other top technology firms both acquire relatively younger companies than other acquirers. Importantly, we note that acquiring a target firm at a younger age does not necessarily imply an anti-competitive motive or anti-competitive outcomes. Under the killer acquisition theory, for a target to be a threat

to an incumbent, it must have introduced a valuable product or service that has a significant overlap with the incumbent's business, and the acquiring incumbent must offer an acquisition price that exceeds the expected payoff of the target should it remain independent. First, as the previous point indicates, we find that the vast majority of GAFAM's acquisitions have been of target firms that operate outside their GAFAM acquirer's core business area. Second, we find that acquirers in the Information sector overall tend to acquire younger target companies because those younger targets operate in newer technology areas. Third, this logic implies that killer acquisitions should be characterized by large transaction prices, but the vast majority of GAFAM's transactions during 2010-2019 that were not reported to antitrust authorities under the Hart-Scott-Rodino Act had relatively small acquisition prices, per the FTC's 6(b) report.[6]

8. We find a positive link between a public firm's likelihood to engage in technology M&A and the amount of competition it faces from other public firms at the time of M&A. In other words, tech M&A is associated with firms that face more intense competition in their home markets from other incumbent public firms. Combined with our other findings, this suggests that tech M&A is associated with firms that are seeking ways to expand technologically and differentiate their offerings.

We hope that these comments are useful. Please contact us if you have any questions.

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[6] "Non-HSR Reported Acquisitions by Select Technology Platforms, 2010-2019: An FTC Study," *supra* note 1.